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Practitioner's Docket No. 740789-1830

CHAPTER II

**TRANSMITTAL LETTER  
TO THE UNITED STATES ELECTED OFFICE (EO/US)  
(ENTRY INTO U.S. NATIONAL PHASE UNDER CHAPTER II)**

**INTERNATIONAL APPLICATION NO.    INTERNATIONAL FILING DATE    PRIORITY DATE CLAIMED**

PCT/GB00/00277                      01 February 2000 (01.02.00)    01 February 1999 (01.02.99)

**TITLE OF INVENTION**

NEURAL PROCESSING ELEMENT FOR USE IN A NEURAL NETWORK

**APPLICANTS**

LIGHTOWLER, Neil

**Box PCT  
Assistant Commissioner for Patents  
Washington, D.C. 20231**

**ATTENTION: EO/US**

**VERIFIED CERTIFICATION OF EXPRESS MAILING DATE**

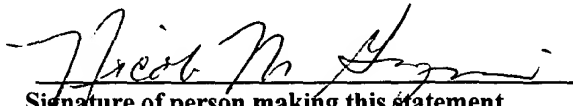
I declare that on 01 August 2001, I deposited, with the United States Postal Service, in an envelope "Express Mail, Post Office to Addressee," bearing Label Number EL565099008US, addressed to "Box PCT, Assistant Commissioner for Patents, Washington, D.C. 20231, Attention EO/US" and having an express mail certification that I executed, the following papers:

1. Transmittal Letter to the United States Elected Office (6 pgs);
2. Preliminary Amendment (8 pgs);
3. Declaration and Power of Attorney – Executed by Neil Lightowler (4 pgs);
4. Copy of the Published International Application as filed (35 USC § 371(c)(2)) [including Drawings and International Search Report] – WO 00/45333 (PCT/GB00/00277) (212 pgs);
5. Copy of Form PCT/IB/308 (2 pgs);
6. Copy of International Examination Report Transmittal and Report – PCT/IPEA/416 and PCT/IPEA/409 (10 pgs);
7. Copy of International Search Report Transmittal and Report [with Annexes] - PCT/ISA/220 and PCT/ISA/210 (7 pgs);
8. PCT/IB/301 - Notification of Receipt of Record Copy [with Annex] (2 pgs);
9. PCT/IB/304 – Notification Concerning Submission or Transmittal of Priority Document (1 pg);
10. Check in the Amount of \$ 457.00;
11. Return Receipt Postcard.

A copy of these papers from the file of this application are attached.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

Date: 01 August 2001

  
Signature of person making this statement

Practitioner's Docket No. 740789-051830

CHAPTER II

**TRANSMITTAL LETTER  
TO THE UNITED STATES ELECTED OFFICE (EO/US)  
(ENTRY INTO U.S. NATIONAL PHASE UNDER CHAPTER II)**

| INTERNATIONAL APPLICATION NO. | INTERNATIONAL FILING DATE   | PRIORITY DATE CLAIMED       |
|-------------------------------|-----------------------------|-----------------------------|
| PCT/GB00/00277                | 01 February 2000 (01.02.00) | 01 February 1999 (01.02.99) |

TITLE OF INVENTION

NEURAL PROCESSING ELEMENT FOR USE IN A NEURAL NETWORK

APPLICANTS

LIGHTOWLER, Neil

Box PCT  
Assistant Commissioner for Patents  
Washington D.C. 20231

ATTENTION: EO/US

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence, on the date shown below, is being deposited with the United States Postal Service with sufficient postage as Express Mail Label No. EL565099008US in an envelope addressed to Box PCT, Assistant Commissioner of Patents, Washington, D.C. 20231, Attention: EO/US.

Date: 01 August 2001

  
Nicole M. Gignac

1. Applicant herewith submits to the United States Elected Office (EO/US) the following items under 35 U.S.C. 371:
  - a. ☒ This express request to immediately begin national examination procedures (35 U.S.C. Section 371(f)).
  - b. ☒ The U.S. National Fee (35 U.S.C. Section 371(c)(1)) and other fees (37 C.F.R. Section 1.492) as indicated below:

In re application of: LIGHTOWLER, Neil Group: Not yet assigned  
Application No.: Not Yet Assigned Examiner: Not yet assigned  
(National Phase Entry of PCT/GB00/00277)  
Filed: Herewith  
For: NEURAL PROCESSING ELEMENT FOR USE IN A NEURAL NETWORK

2.Fees

| CLAIMS FEE   | (1) FOR   | (2) NUMBER FILED | (3) NUMBER EXTRA | (4) RATE     | (5) CALCULATIONS |
|--------------|---|------------------|------------------|--------------|------------------|
| [X]*         | TOTAL CLAIMS  | 23 - 20 =        | 3                | x \$ 18.00 = | \$ 54.00         |
|              | INDEPENDENT CLAIMS  | 3 - 3 =          | 0                | x \$ 80.00 = | \$ 0.00          |
|              | MULTIPLE DEPENDENT CLAIM(S) (if applicable) + \$270.00  |                  |                  |              | \$               |
| BASIC FEE**  | <input type="checkbox"/> U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY<br>Where an International preliminary examination fee as set forth in Section 1.482 has been paid on the international application to the U.S. PTO:<br><input type="checkbox"/> and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(2) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. Section 1.492(a)(4)) ..... \$100.00<br><input type="checkbox"/> and the above requirements are not met (37 C.F.R. Section 1.492(a)(1)) ..... \$690.00<br><input checked="" type="checkbox"/> U.S. PTO WAS NOT INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY<br>Where no international preliminary examination fee as set forth in Section 1.482 has been paid to the U.S. PTO, and payment of an international search fee as set forth in Section 1.445(a)(2) to the U.S. PTO:<br><input type="checkbox"/> has been paid (37 C.F.R. 1.492(a)(2)) ..... \$710.00<br><input type="checkbox"/> has not been paid (37 C.F.R. 1.492(a)(3)) ..... \$1,000.00<br><input checked="" type="checkbox"/> where a search report on the international application has been prepared by the European Patent Office or the Japanese Patent Office (37 C.F.R. Section 1.492(a)(5)) ..... \$860.00 |                  |                  |              | \$ 860.00        |
|              | Total of above Calculations   |                  |                  |              | = \$ 914.00      |
| SMALL ENTITY | Reduction by 1/2 for filing by small entity, if applicable.<br>*Applicant asserts small entity status.  |                  |                  |              | - \$ 457.00      |
|              | Subtotal  |                  |                  |              | \$ 457.00        |
|              | Total National Fee  |                  |                  |              | \$ 457.00        |
|              | Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET".   |                  |                  |              |                  |
| TOTAL        | Total Fees enclosed   |                  |                  |              | \$ 457.00        |

In re application of: GILCHRIST, Thomas  
Application No.: Not Yet Assigned  
(National Phase Entry of PCT/GB99/03077)  
Filed: Herewith  
For: BONE REPAIR COMPOSITE MATERIAL

Group: Not yet assigned  
Examiner: Not yet assigned

- i. ☒ A check in the amount of \$ 457.00 to cover the above fees is enclosed.
  - ii. ☐ Please charge Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.  
A duplicate copy of this sheet is enclosed.
3. ☒ A copy of the International application as filed (35 U.S.C. Section 371(c)(2)):
- a. ☐ is transmitted herewith.
  - b. ☐ is not required, as the application was filed with the United States Receiving Office.
  - c. ☒ has been transmitted
    - i. ☒ by the International Bureau.  
Date of mailing of the application (from form PCT/IB/308):  
03 Aug 2000 (03.08.00).
    - ii. ☐ by applicant on \_\_\_\_\_.  
Date
4. ☒ A translation of the International application into the English language (35 U.S.C. Section 371(c)(2)):
- a. ☐ is transmitted herewith.
  - b. ☒ is not required as the application was filed in English.
  - c. ☐ was previously transmitted by applicant on \_\_\_\_\_.  
Date
  - d. ☐ will follow.
5. ☒ Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. Section 371(c)(3)):
- a. ☐ are transmitted herewith.
  - b. ☐ have been transmitted
    - i. ☐ by the International Bureau.  
Date of mailing of the amendment (from form PCT/IB/308): \_\_\_\_\_.
    - ii. ☐ by applicant on \_\_\_\_\_.  
Date
  - c. ☒ have not been transmitted as
    - i. ☒ applicant chose not to make amendments under PCT Article 19.  
Date of mailing of Search Report (from form PCT/ISA/210): 30 June 2000 (30.06.00).
    - ii. ☐ the time limit for the submission of amendments has not yet expired.  
The amendments or a statement that amendments have not been made will be transmitted before the expiration of the time limit under PCT Rule 46.1.

In re application of: LIGHTOWLER, Neil      Group: Not yet assigned  
 Application No.: Not Yet Assigned      Examiner: Not yet assigned  
 (National Phase Entry of PCT/GB00/00277)  
 Filed: Herewith  
 For: NEURAL PROCESSING ELEMENT FOR USE IN A NEURAL NETWORK

6. ☒ A translation of the amendments to the claims under PCT Article 19 (38 U.S.C. Section 371(c)(3)):
- a. ☐ is transmitted herewith.
  - b. ☐ is not required as the amendments were made in the English language.
  - c. ☒ has not been transmitted for reasons indicated at point 5(c) above.
7. ☒ A copy of the international examination report (PCT/IPEA/409)
- ☒ is transmitted herewith.
  - ☐ is not required as the application was filed with the United States Receiving Office.
8. ☒ Annex(es) to the international preliminary examination report
- a. ☐ is/are transmitted herewith.  
 Applicants request entry of the annex to the IPER to the International Application if such has not been done.
  - b. ☐ is/are not required as the application was filed with the United States Receiving Office.
  - c. ☒ there are no annexes.
9. ☒ A translation of the annexes to the international preliminary examination report
- a. ☐ is transmitted herewith.
  - b. ☐ is not required as the annexes are in the English language.
  - c. ☒ there are no annexes.
10. ☒ An oath or declaration of the inventor (35 U.S.C. Section 371(c)(4)) complying with 35 U.S.C. 115
- a. ☐ was previously submitted by applicant on \_\_\_\_\_.  
 Date
  - b. ☒ is submitted herewith, and such oath or declaration
    - i. ☐ is attached to the application.
    - ii. ☒ identifies the application and any amendments under PCT Article 19 that were transmitted as stated in points 3(b) or 3(c) and 5(b); and states that they were reviewed by the inventor as required by 37 C.F.R. Section 1.70.
  - c. ☐ will follow.

Other document(s) or information included:

11. ☒ An International Search Report (PCT/ISA/210) or Declaration under PCT Article 17(2)(a):

In re application of: GILCHRIST, Thomas  
Application No.: Not Yet Assigned  
(National Phase Entry of PCT/GB99/03077)  
Filed: Herewith  
For: BONE REPAIR COMPOSITE MATERIAL

Group: Not yet assigned  
Examiner: Not yet assigned

- a. ☒ is transmitted herewith.  
b. ☐ has been transmitted by the International Bureau.  
Date of mailing (from form PCT/IB/308): \_\_\_\_\_  
c. ☐ is not required, as the application was searched by the United States International Searching Authority.  
d. ☐ will be transmitted promptly upon request.  
e. ☐ has been submitted by applicant on \_\_\_\_\_  
Date
12. ☒ An Information Disclosure Statement under 37 C.F.R. Sections 1.97 and 1.98:  
a. ☐ is transmitted herewith.  
Also transmitted herewith is/are:  
☐ Form PTO-1449 (PTO/SB/08A and 08B).  
☐ Copies of citations listed.  
b. ☒ will be transmitted within THREE MONTHS of the date of submission of requirements under 35 U.S.C. Sections 371(c).  
c. ☐ was previously submitted by applicant on \_\_\_\_\_  
Date
13. ☐ An assignment document is transmitted herewith for recording.
- A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.
- \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
14. ☒ Additional documents:  
a. ☐ Copy of request (PCT/RO/101)  
b. ☒ International Publication No. WO 00/45333  
i. ☒ Specification, claims and drawings  
ii. ☐ Front page only  
c. ☒ Preliminary amendment (37 C.F.R. Section 1.121)  
d. ☐ Other
15. ☒ The above checked items are being transmitted  
a. ☒ before 30 months from any claimed priority date. (Copies of PCT/IB/301 and PCT/IB/304 are enclosed herewith.)  
b. ☐ after 30 months.

In re application of: LIGHTOWLER, Neil Group: Not yet assigned  
Application No.: Not Yet Assigned Examiner: Not yet assigned  
(National Phase Entry of PCT/GB00/00277)  
Filed: Herewith  
For: NEURAL PROCESSING ELEMENT FOR USE IN A NEURAL NETWORK

16. ☐ Certain requirements under 35 U.S.C. 371 were previously submitted by the applicant on \_\_\_\_\_, namely:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**AUTHORIZATION TO CHARGE ADDITIONAL FEES**

- ☒ The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper and during the entire pendency of this application to Account No. 50-0850.

- ☒ 37 C.F.R. Section 1.492(a)(1), (2), (3), and (4) (filing fees)  
☒ 37 C.F.R. Section 1.492(b), (c) and (d) (presentation of extra claims)  
☒ 37 C.F.R. Section 1.17 (application processing fees)  
☐ 37 C.F.R. Section 1.17(a)(1)-(5)(extension fees pursuant to Section 1.136(a).  
☐ 37 C.F.R. Section 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. Section 1.311(b))  
☐ 37 C.F.R. Section 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 30 months after the priority date).

Date: 01 August 2001

Customer No.: 26770

Respectfully submitted,



David S. Resnick (Reg. No. 34,235)  
NIXON PEABODY LLP  
101 Federal Street  
Boston, MA 02110  
(617) 345-6057